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HOUSEKEEPERS' CHAT

Tuesday, Jan. 10, 1933.

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Subject: "Questions and Answers." Information from the Bureau of Dairy Industry, Bureau of Animal Industry, Bureau of Plant Industry, Bureau of Chemistry and Soils, U.S.D.A.

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Letters from here, there, and everywhere in the mail bag this morning. And so many good questions to answer. One housekeeper asks what makes cream whip well. Another inquires what gives butter its flavor. A small boy wants to know why pop corn pops. Another listener asks what causes blood spots in eggs. And still another asks why sauerkraut, made only this fall, is becoming soft. Five good questions. I'll take them up in order and tell you just how the specialists answered each one.

Question number one, "What makes cream whip?"

Specialists in the Bureau of Dairy Industry say that ice cold cream containing 30 to 35 per cent fat and from 12 to 36 hours old gives the best results in whipping. Cream which meets these three requirements of temperature, fat content, and age should whip to a stiff mass that will stand up for several days in the refrigerator without much loss from drainage of liquid.

The specialists explain that two things happen at the same time when you whip cream. First, you put air into the cream and this increases the volume. At the same time the fat globules form into clusters and this stiffens the mass. So the stiffness of whipped cream is due to a network of fat globules which holds air and the fluid part of the cream. Very little of the liquid will drain out so long as the whipped cream is kept in a cold place. A high percentage of fat makes a denser and more rigid network, while the cold keeps the fat hard.

The cream needs to be cold both before and during the whipping process, so use a chilled bowl and whipper. Stop beating when the cream reaches the proper degree of stiffness as too much whipping is just as bad as too little. Under ideal conditions this will be within two minutes. As to this matter of age, the specialists have discovered that very fresh cream may not whip, but if it is kept for a day or two in a cold place, it will whip very well.

Question number two, "Where does butter get its flavor?"

In answering this question, the specialists say that in butter of high quality the pleasing flavor is due to the right proportion of certain fats and acids. Butter made from sweet cream, cream which was not allowed to sour and to which no acid-producing bacteria was added, generally has a mild, clean flavor. But much butter is made from cream which has been subjected to the action of certain desirable types of bacteria. Such butter has a more pronounced flavor and one which many people prefer. Remember how grandmother used to make butter on the farm. She allowed the cream to stand for several hours in the warm kitchen to sour. Sometimes the flavor of her butter was good and sometimes not. Sometimes the cream became mildly sour and other times it was too sour. This was because she did not control the souring process.

Butter with the best flavor and with a plastic, waxy body comes from careful handling of both the cream and the butter at the proper temperature. If you churn work and pack butter in too hot a room your butter will be greasy and weak. If you do not work the butter enough to distribute the salt evenly, your butter will be mottled. The amount of table salt in butter has a great deal to do with its flavor. Sometimes butter seems to taste "flat". This is simply because it contains too little salt. If you use more salt it will bring out the flavor.

Now to answer the small boy who wants to know why pop corn pops. A steam explosion takes place inside each kernel. You see, each grain of corn contains a moist pulp inside the hard shell. When the moisture inside becomes hot, it turns to steam. As the steam can't escape through the shell it explodes, breaks the shell and lets all the puffy white inside out. Corn will not pop when it is too dry or too moist, say the Cereal Specialists. Pop corn stored where it is in contact with the outside air will have the right amount of moisture for popping. If it is too moist exposure in a heated room will dry it out. If it is too dry, sprinkle it lightly with water and leave it in a tight container for a day or two until the moisture is absorbed. Corn pops best when the fire is hot enough to make it begin to pop in about 1-1/2 minutes.

The next inquiry was about the small blood spots sometimes found in eggs. If you find such a spot in your breakfast egg, don't make up your mind that the egg is necessarily stale or bad. Blood spots occasionally appear in fresh eggs, but seldom in the best grades of eggs that are candled and sold on the market. Eggs from farm flocks are not so likely to contain these spots as those from commercial flocks that are fed for maximum production. The seasons when blood spots are most likely to occur are late spring when the hens are laying heavily or fall when the pullets begin to lay. Less forcing for egg production and liberal feeding of green feeds will tend to reduce the formation of such spots.

The last question today is: "What causes sauerkraut to become soft?" This is due to spoilage caused by undesirable microorganisms. Several things may cause this difficulty. First, the kraut may contain too little lactic acid to preserve it. Or you may not have enough juice to cover the kraut and keep it from being exposed to the air. Or, finally, you may have kept your kraut at too warm a temperature after the fermentation has been completed. If you use good, firm cabbage, if you ferment it at room temperature having a salt concentration of about 2-1/2 per cent, and store afterward in a cool place, the specialists say you should have no trouble.